

Notice of Allowability

Application No.

10/022,333

Examiner

Kwang B. Yao

Applicant(s)

SILVERS, JOHN LEROY

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2667

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to Amendment filed 10/11/05.
2. ☒ The allowed claim(s) is/are 1-20, renumbered 1-6, 14-17, 7-13, 18-20, respectively.
3. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) ☐ All b) ☐ Some* c) ☐ None of the:
 1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
 5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
 - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
 - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
 - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

- | | |
|---|--|
| 1. <input type="checkbox"/> Notice of References Cited (PTO-892) | 5. <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 2. <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 6. <input type="checkbox"/> Interview Summary (PTO-413),
Paper No./Mail Date _____. |
| 3. <input type="checkbox"/> Information Disclosure Statements (PTO-1449 or PTO/SB/08),
Paper No./Mail Date _____ | 7. <input type="checkbox"/> Examiner's Amendment/Comment |
| 4. <input type="checkbox"/> Examiner's Comment Regarding Requirement for Deposit
of Biological Material | 8. <input checked="" type="checkbox"/> Examiner's Statement of Reasons for Allowance |
| | 9. <input type="checkbox"/> Other _____. |

REASONS FOR ALLOWANCE

1. The following is an examiner's statement of reasons for allowance:

The present invention is directed to a system and a method for effectively increasing transmission bandwidth by transmitting a plurality of simultaneous information streams over a transmission medium. Each independent claim identifies the uniquely distinct features: regarding claim 1, a. a digital receiving mechanism for receiving incoming streams of digital information on each of a plurality of incoming digital lines, the digital information being in a binary format of "0"s and "1"s, b. an assignment mechanism for generating respective streams of "no-play" and "play" commands using digital information on each of a plurality of corresponding incoming streams; c. a signal generation mechanism equipped to generate a plurality of prime number frequency components; d. a switching mechanism, coupled to the signal generation mechanism, for rendering the digital information on each of the plurality of incoming streams unique by applying "no-play" and "play" commands of a respective incoming stream to a corresponding prime number frequency component to be generated by the signal generation mechanism, to thereby generate a corresponding plurality of prime number frequency component information streams; and e. a transmission mechanism for simultaneously transmitting the plurality of prime number frequency component information streams over the transmission medium in the form of disharmonic chords, whereby respective prime number frequency component information streams represent corresponding incoming digital lines; regarding claim 14 (originally filed claim 7), a. a digital receiving mechanism for receiving incoming streams of digital information on each of a plurality of incoming digital lines, the digital information being in a binary format of "0"s and "1"s, b. an assignment mechanism for generating respective

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streams of "no-play" and "play" commands using digital information on each of a plurality of corresponding incoming streams; c. a signal generation mechanism equipped to generate a plurality of prime number frequency components; d. a switching mechanism, coupled to the signal generation mechanism, for rendering the digital information on each of the plurality of incoming streams unique by applying "no-play" and "play" commands of a respective incoming stream to a corresponding prime number frequency component to be generated by the signal generation mechanism, to thereby generate a corresponding plurality of prime number frequency component information streams; and e. a data storage mechanism for storing the plurality of prime number frequency component information streams on the data storage medium in the form of electronic representations of disharmonic chords, whereby respective prime number frequency component information streams represent corresponding incoming digital lines; regarding claim 19, receiving incoming streams of digital information on each of said plurality of incoming binary bit streams, the digital information being in a binary format of "0"s and "1"s; generating respective streams of "no-play" and "play" commands using digital information on each of a plurality of corresponding incoming binary bit streams; generating a plurality of prime number frequency components; rendering the digital information on each of the plurality of incoming binary bit streams unique by applying "no-play" and "play" commands of a respective incoming binary bit stream to a corresponding generated prime number frequency, to thereby generate a corresponding plurality of prime number frequency component information streams; and simultaneously transmitting the plurality of prime number frequency component information streams over the transmission medium in the form of disharmonic chords, whereby respective prime number frequency component information streams represent corresponding incoming

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binary bit streams. The closest prior art, the admitted prior art and Hreha et al. (US 6,341,247) disclose conventional communication system, either singularly or in combination, fail to anticipate or render the above features obvious.

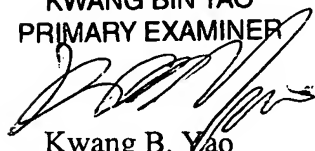
Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

2. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kwang B. Yao whose telephone number is 571-272-3182. The examiner can normally be reached on M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Chi H. Pham can be reached on 571-272-3179. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

KWANG BIN YAO
PRIMARY EXAMINER



Kwang B. Yao
December 6, 2005